

data summary

Southern Surveyor Voyage SS 200802



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SS 200802

Title

“The role of submarine canyons in upwelling, sediment transport, and productivity hotspots off the Bonney Coast and Kangaroo Island, South Australia.”

Principal Investigator

Dr David Currie, SARDI Aquatic Sciences

Dr John Middleton, SARDI Aquatic Sciences

Assoc. Prof Bruce Ainsworth, University of Adelaide, Australian School of Petroleum

Dr Sasi Nayar, SARDI Aquatic Sciences

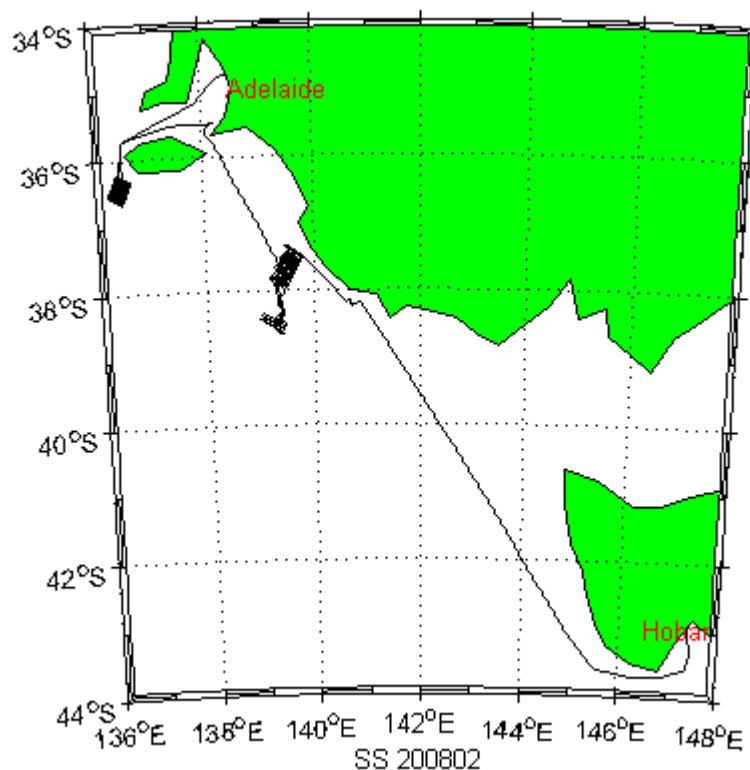
Ports

Hobart – Port Adelaide

Date

4 – 26 February 2008

Voyage Track



Underway Data

Navigation data is acquired using the Seapath 200 position and reference unit, which is also differentially corrected by data from the FUGRO DGPS receiver.

The Meteorological data consists of 2 relative humidity and temperature sensors; a barometer, wind sensor, and licor light sensor.

Thermosalinograph data is acquired with a Seabird TSG and remote temperature SBE 3T. Data from a flow meter is also recorded.

Digital depth data is recorded from a Simrad EA500 sounder. Echograms are also recorded using SonarData's Echolog software. Digital depth data can be repicked using SonarData's Echoview software.

See Electronics report for this voyage for instruments used and serial numbers.

Navigation, Meteorological, Thermosalinograph and Depth data are quality controlled by combining all data from hourly recorded files to 10 second values in a netCDF formatted file; the combined data is referred to as "underway data".

A combined file was made on 3 March 2008 by running a Java application, written by Lindsay Pender of CMAR, uwyLogger version 7.4. The data time range is 02:41:20 04-Feb-2008 – 22:17:30 25-Feb-2008 (GMT).

Completeness and Data Quality

Position (latitude and longitude); meteorological data (air temperature, humidity, wind speed, wind direction, maximum wind gust, light and atmospheric pressure) and thermosalinograph (salinity and water temperature) data and depth data were evaluated and quality controlled.

Processing Comments

Salinity and Water temperature data were rejected when the pump was turned off.

23:17:50 05-Feb-2008 – 06:54:30 06-Feb-2008.

The depth data was re picked using Sonar Data's echoview software.

Final Underway Data

The navigation, meteorological, thermosalinograph and depth data will be entered into the CMAR Divisional data warehouse.

ADCP Data

The Acoustic Doppler Current Profiling data was collected using an RDI vessel mounted Ocean Surveyor with a frequency of 75kHz. RDI's Vessel Mounted Data Acquisition System was used to acquire the data.

Long Term Averaged files returned from the ship were used to process the data.

Each ensemble time was 5 minutes.

Completeness and Data Quality

Gap in data coverage	Comments
16-Feb-2008 21:36 – 17-Feb-2008 04:48	Water too shallow
25-Feb-2008 12:00 – 21:36	Water too shallow

Processing Comments

Data were processed using University of Hawaii's "CODAS" processing system.

The data was calibrated with rotate_angle -0.59 and rotate_amplitude 1.006

Final ADCP Data

The number of bins was changed several times throughout the voyage; unfortunately, the CODAS software can't produce one file of varying depths (ie when the bin size or number of bins changes). So several netcdf files have been produced for this voyage.

File Name	Number of bins	Date Range
Ss200802_adcp_A.nc	80	4-Feb-2008 03:49 – 8-Feb-2008 08:06
Ss200802_adcp_B.nc	80	8-Feb-2008 08:11 – 10-Feb-1008 18:41
Ss200802_adcp_C.nc	100	10-Feb-2008 18:17 – 11-Feb-2008 11:37
Ss200802_adcp_D.nc	80	11-Feb-2008 13:03 – 13-Feb-2008 01:48
Ss200802_adcp_E.nc	120	13-Feb-2008 01:50 – 22-Feb-2008 01:48
Ss200802_adcp_F.nc	80	22-Feb-2008 01:55 – 23-Feb-2008 23:50
Ss200802_adcp_G.nc	120	23-Feb-2008 23:55 – 25-feb-2008 22:25

References

Pender, L., 2000. Data Quality Control flags.
http://www.csiro.marine.au/datacentre/ext_docs/DataQualityControlFlags.Pdf

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